

Weekly Report

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Misc.

- The slides for summer school is finished.
- Many job interviews.

Projects

InfoVis Paper Review

- Details of the labeling process has been modified.
- The codes and models are re-organized which will be submitted as supplemental materials.

Plan for the Next Week

- For the InfoVis paper,
 - Modify the introduction section to change the entire presentation of our work (from a “metric” to an “approach”);
 - Discuss how this work improves the InfoVis community in the discussion section.
- Final check of the summer school slides.

Paper Reading

This week I skipped the accepted papers of KDD 2017.

“Why Should I Trust You?”: Explaining the Predictions of Any Classifier

This paper proposed a method call LIME (Local Interpretable Model Explanation) to explain why a classifier gives a prediction to an unlabeled data. The method treats classifiers as black boxes so it fits for every classification models. The explanations include the most significant human-understandable features that dominate the prediction, thus make a comprehensible result. The demo video is at <https://www.youtube.com/watch?v=hUnRCxnydCc> which is quite cute yet clear.

Towards an Optimal Subspace for K-Means

This model performs k-means clustering and linear transformation of dataset at the same time, thus it is more easily to discover clustering structures than other linear transformation methods such as PCA.

metapath2vec: Scalable Representation Learning for Heterogeneous Networks

Another blah2vec paper. Meh.

This paper tends to learn an embedding representation for heterogeneous networks. The basic techniques are random walk (for graphs) and skip-gram models (for Word2Vec).

Is the Whole Greater Than the Sum of Its Parts?

A work cooperated with Nan Cao and Conglei Shi. It tackles a problem that in a complex system, the outcome of the entire system is sometimes less than simple summation of outcomes from each parts. The paper builds a model to predict the outcome loss for a system.

Constructivism Learning: A Learning Paradigm for Transparent Predictive Analytics

For human, there are two learning